Categories? (handwritten)

BOOKS:

Charles C. Alexander, *Holding the Line: The Eisenhower Era, 1952-1961.* Bloomington: Indiana University Press, 1975.

"ARPANET, The Defense Data Network, and Internet," The Froehlich/Kent Encyclopedia of Telecommunications, Fritz E. Froehlich and Allen Kent, Eds., Marcel Dekker, Inc., New York, 1991. *and Carolyn M. Hall* (handwritten)

Baran, Paul. "Packet Switching," Fundamentals of Digital Switching (2nd edition), John C. McDonald Ed., Plenum Publishing, 1990. —— *New York. 1ST Ed. 1983.* (handwritten)

John A. Barry, *Technobabble.* Cambridge: MIT Press, 1991.

Bell, C. Gordon, Alan Kotok, Thomas N. Hastings, and Richard Hill. "The Evolution of the DEC System-10," Computer Engineering: A DEC View of Hardware Systems Design, C. Gordon Bell, J. Craig Mudge and John E. McNamara, Eds. Digital Equipment Corporation, Bedford (MA), 1978.

Bell, C. Gordon, Gerald Butler, Robert Gray, John E. McNamara, Donald Volanda and Ronald Wilson. "The PDP-1 and Other 18-Bit Computers," Computer Engineering: A DEC View of Hardware Systems Design, C. Gordon Bell, J. Craig Mudge and John E. McNamara, Eds. Digital Equipment Corporation, Bedford (MA), 1978.

Erik Bergaust, *Wernher von Braun.* Washington, D.C.: National Space Institute, 1976.

Blanc, Robert P. and Ira W. Cotton, Eds. Computer Networking. IEEE Press, New York, 1976.

Piers Brendon, *Ike: His Life and Times.* New York: Harper & Row, 1986.

Brooks, John. Telephone: The First Hundred Years, Harper & Row, New York, ~~1975~~ *1976.* (handwritten)

Brucker, Roger W. and Richard A. Watson, The Longest Cave, Alfred A. Knopf, New York, ~~197~~ *76* (handwritten)

Fumbling the Future: How Xerox Invented, Then Ignored, the First Personal Computer, William Morrow, New York, 1988. *Smith, Douglas K. and Robert C. Alexander.* (handwritten)

Goldstein, Jack S. A Different Sort of Time: The Life of Jerrold R. Zacharias, MIT Press, Cambridge (MA), 1992.

Hall, Mark and John Barry. Sunburst: The Ascent of Sun Microsystems. Contemporary Books, Chicago, 1990.

David Halberstam, *The Fifties*. New York: Villard Books, 1993.

William M. Hammond, *Public Affairs: The Military and The Media, 1962-1968*. Washington, D.C.: Center of Military History, U.S. Army, Superintendent of Documents, U.S. Government Printing Office, 1968.

W. Clay Hamner, "The United States Postal Service: Will It Be Ready for the Year 2000?" In *The Future of The Postal Service*, edited by Joel L. Fleishman. New York: Praeger, 1983.

Holzmann, Gerard J. and Björn Pehrson. The Early History of Data Networks, IEEE Computer Society Press, Los Alamitos (CA), 1995

Kidder, Tracy, *The Soul of a New Machine*. Boston: Little Brown, 1981.

Killian, James R. Jr., *Sputnik, Scientists, and Eisenhower: A Memoir of The First Special Assistant to the President for Science and Technology*. Cambridge: MIT Press, 1977.

Killian, James R. Jr., *The Education of a College President: A Memoir*. Cambridge: MIT Press, 1985.

Kleinrock, Leonard. Communication Nets: Stochastic Message Flow and Delay, McGraw-Hill, New York, 1964.

Kleinrock, Leonard. Queueing Systems (Volume 2: Computer Applications), John Wiley & Sons, New York, tk year   *1975 - 1976*

Lebow, Irwin. From the Telegraph to the 21st Century: Information Highways & Byways. IEEE Press, New York, 1995.

Licklider, J.C. R. "Computers and Government," The Computer Age: A Twenty-Year View *Dertouzos and Moses eds.* Edited by Michael L. Dertouzos al Joel Moses.

Licklider, J.C.R. Libraries of the Future, MIT Press, Cambridge (MA), 1965.

Padlipsky, M.A. The Elements of Networking Style and Other Essays & Animadversions of the Art of Intercomputer Networking, Prentice-Hall, Inc., Englewood Cliffs (NJ), 1985.

Data Communications Symposium.
Proceedings of the Fifth Data Communications Symposium, September 27-29, 1977, *IEEE Computer Society, New York, 1977.* in Snowbird, Utah.

Redmond, Kent C. and Thomas M. Smith. The Whirlwind Project: The History of a Pioneer Computer Digital Press, Bedford (MA) 1980.   Camb.: MIT. — 1979

Rheingold, Howard. The Virtual Community, Harper Perennial, New York, 1994.

Massachusetts Inst. of Techn. MIT Bicentennial

Marshall T. Rose, *The Internet Message: Closing the Book With Electronic Mail.* Englewood Cliffs, N.J.: PTR Prentice Hall, 1993.

Sherman, Kenneth. Data Communications: A User's Guide, Reston Publishing Company, Reston (VA), 1981.

"The Telephone's First Century--And Beyond," Thomas Y. Crowell Company, New York, 1977. *Essays on The Occasion of The 100th Anniversary of*

Stewert L. Udall, *The Myths of August: A Personal Exploration of Our Tragic* *Telephone* *Cold War Affair With The Atom.* New York: Pantheon, 1994. *Communication.*

Winner, Langdon. The Whale and the Reactor: A Search for Limits in an Age of High Technology. Univ. of Chicago Press, Chicago, 1986.

Clarke, Arthur C., et al.

▷ NEWSPAPER AND MAGAZINE ARTICLES:

Anderson, Christopher. "The Accidental Superhighway," The Economist, ck date.

Ben Pearse, "Defense Chief in the Sputnik Age," *The New York Times Magazine,* 10 November 1957.

"Bolt Beranek, Aides Accused of Cheating U.S. on Several Jobs," The Wall Street Journal, October 28, 1980.

Buckley, William M. "Can He Turn Big Ideas Into Big Sales?," The Wall Street Journal, September 12, 1994.

Vannevar Bush, "As We May Think,"*The Atlantic Monthly*, July 1945.

Vinton Cerf, "Parry Encounters the Doctor: Conversation between a simulated paranoid and a simulated psychiatrist." *Datamation:* July 1973.

Denning, Peter J. "The Science of Computing: The ARPANET after Twenty Years," American Scientist, November-December 1989.

Dow Jones News Service-Wall Street Journal Combined Stories. "Bolt Beranek Accused by Government of Contract Overcharges," 27 October 1980.

Dow Jones News Service-Wall Street Journal Combined Stories. "Bolt Beranek and Newman: Two Aides Plead Guilty to U.S. Charge,"12 November 1980.

"Dr. J.C.R. Licklider Receives Biennial Award at State College Meeting," The Journal of the Acoustical Society of America, November, 1950.

Ericson, Raymond. "Philharmonic Hall Acoustics Start Rumors Flying." The New York Times, December 4, 1962.

Finucane, Martin. "Creators of the Internet forerunner Gather in Boston," The Reading (MA) Daily Times Herald, September 12, 1994.

Fisher, Sharon. "The Largest Computer Network: Internet Links Unix Computers Worldwide," Infoworld, April 25, 1988.

Haughney, Joseph F. "Anatomy of a Packet-Switching Overhaul," Data Communications, June, 1982.

Holusha, John. "Computer Tied Carter, Mondale Campaigns: The Bethesda Connection," *Washington Star*, 21 November 1976.

Jennings, Dennis M., Lawrence Landwebber, Ira H. Fuchs, David J. Farber, and W. Richards Adrion. "Computer Networking for Scientists," Science, February 22, 1986.

Kantrowitz, Barbra and Adam Rogers. "The Birth of the Internet," Newsweek, August 8, 1994.

Markoff, John. The New York Times, Up From the Computer Underground, August 27, 1993

Mier, Edwin E. "Defense Department Readying Network Ramparts," Data Communications, October, 1983.

Mohl, Bruce A. "2 Bolt, Beranek Officials Collapse in Federal Court," The Boston Globe, October 31, 1980.

Pallesen, Gayle. "Consultant Firm on PBIA Faces Criminal Charges," The Palm Beach (FL) Post, November 8, 1980.

Pallesen, Gayle. "Court Fines Firm Studying Airport Noise," The Palm Beach (FL) Post, DATE?.

Pool, Bob. "Inventing the Future: UCLA Scientist Who Helped Create Internet Isn't Done Yet," The Los Angeles Times, August 11, 1994.

Salus, Peter. "Pioneers of the Internet," Internet World, September, 1994.

Schonberg, Harold C. "4 Acoustics Experts to Urge Revisions in Auditorium," The New York Times, April 4, 1963.

Schonberg, Harold C. "Acoustics Again: Philharmonic Hall Has Some Defects, but Also a Poetry of its Own." The New York Times, December 9, 1962.

Space Agencies, "ARPA Shapes Military Space Research," *Aviation Week*, 16 June 1958, 83-85.

Sterling, Bruce. "Internet," *Fantasy and Science Fiction*, February 1993.

"Transforming BB&N: ARPANET's Architect Targets Non-Military Networks," Data Communications, April, 1984.

Wilson, David McKay. "BBN Executives Collapse in Court," The Cambridge (MA) Chronicle, November 6, 1980.

Wilson, David McKay. "Consulting Co. Admits Overcharge," The Cambridge (MA) Chronicle, October 30, 1980.

Zitner, Aaron. " A Quiet Leap Forward in Cyberspace," The Boston Globe, September 11, 1994.

Zuckerman, Laurence. "BBN Steps Out of the Shadows and Into the Limelight," The New York Times, July 17, 1995.

TECHNICAL ARTICLES:

Abramson, Norman. "Development of the Alohanet," IEEE Transactions on Information Theory, January, 1985.

Baran, Paul. "On Distributed Communications Networks," IEEE Transactions on Communications Systems, 1 March 1964.

Baran, Paul. "Reliable Digital Communications Systems Using Unreliable Network Repeater Nodes," The RAND Corporation Mathematics Division Report No. P-1995, 27 May 1960.

Boggs, David R., John F. Shoch, Edward A. Taft and Robert M. Metcalfe. "PUP: An Internetwork Architecture." IEEE Transactions on Communications, April 1980.

Campbell-Kelly, Martin. "Data Communications at the National Physical Laboratory (1965-1975)," Annals of the History of Computing, Vol. 9, No. 3/4, 1988.

Carr, C. Stephen, Stephen D. Crocker, and Vinton G. Cerf. "HOST-HOST Communication Protocol in the ARPA Network," presented to the American

Federation of Information Processing Systems' Spring Joint Computer Conference, 1970.

Cerf, Vinton G. and Peter T. Kirstein. "Issues in Packet-Network Internconnection," Proceedings of the IEEE, November, 1979.

Cerf, Vinton G. and Robert E. Kahn. "A Protocol for Packet Network Intercommunication," IEEE Transactions on Communications, May 1974.

Clark, David D., Kenneth T. Pogran, and David P. Reed. "An Introduction to Local Area Networks," Proceedings of the IEEE, November 1979.

Clark, David D. "The Design Philosophy of the DARPA Internet Protocols," Proceedings of the Association for Computing Machinery Sigcomm Symposium on Data Communications, August 16-19, 1988.

Comer, Douglas. "The Computer Science Research Network CSNET: A History and Status Report." Communications of the ACM, October, 1983.

Crowther, W.R., F.E. Heart, AA. McKenzie, J.M. McQuillan and D.C. Walden. "Issues in Packet Switching," Proceedings of the 1975 National Computer Conference.

Davies, Donald W. *Private communication on remote on-line data processing and its communication needs.* London, 10 November 1965.

Davies, Donald W. *Private communication regarding further speculations on data transmission.* London, 16 November 1965.

Davies, Donald W. "Proposal for the Development of a National Communications Service for On-Line Data Processing." *Private communication.* London, 15 December 1965.

Davies, Donald W. "Proposal for a Digital Communication Network." *Private communication (widely circulated).* London, June 1966.

Davies, Donald W., Keith Bartlett, Roger Scantlebury and Peter Wilkinson. "A Digital Communications Network for Computers Giving Rapid Response at Remote Terminals." Presented at the ACM Symposium on Operating System Principles, Gatlinburg, Tennessee, October 1967.

Denning, Peter J., Anthony Hearn, and C. William Kern. "History and Overview of CSNET," Proceedings of the Association for Computing Machinery Sigcomm Symposium on Data Communications, March 8-9, 1983.

Engelbart, Douglas C. "Coordinated Information Services for a Discipline- or Mission-Oriented Community," Proceedings of the Second Annual Computer Communications Conference, San Jose (CA), January 24, 1972.

Goldstein, Paul. The Proposed ARPANET Divestiture: Legal Questions and Economic Issues. Cabledata Associates, Inc. Working Paper CAWP #101, July 27, 1973.

Heart, F.E., R.E. Kahn, S.M. Ornstein, W.R. Crowther, and D.C. Walden. "The Interface Message Processor for the ARPA Computer Network," presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, 1970.

Jacobs, Irwin M., Richard Binder and Estil V. Hoversten. "General Purpose Packet Satellite Networks," Proceedings of the IEEE, November 1978.

Kahn, Robert E. "The Role of Government on the Evolution of the Internet," Communications of the ACM, August, 1994.

Kahn, Robert E., Steven A. Gronemeyer, Jerry Burchfiel and Ronald C. Kunzelman. "Advances in Packet Radio Technology," Proceedings of the IEEE, November, 1978.

Kleinrock, Leonard. "Principles and Lessons in Packet Communications," Proceedings of the IEEE, November 1978.

Landwebber, Lawrence H., Dennis M. Jennings, and Ira Fuchs. "Research Computer Networks and their Interconnection," IEEE Communications Magazine, June 1986.

Lee, J.A.N. and Robert Rosin. "The CTSS Interviews," IEEE Annals of the History of Computing, Vol. 14, Number 1, 1992.

Lee, J.A.N. and Robert Rosin. "The Project MAC Interviews," IEEE Annals of the History of Computing, Vol. 14, Number 2, 1992.

Licklider, J.C.R. "A Crux in Scientific and Technical Communication," American Psychologist, ck date

Licklider, J.C.R. "Man-Computer Symbiosis," reprinted in In Memoriam: J.C.R. Licklider, Digital Equipment Corporation Systems Research Center, August 7, 1990.

Licklider, J.C.R. and Welden E. Clark. "On-Line Man-Computer Communication," presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, 1962.

Licklider, J.C.R. and Robert W. Taylor. "The Computer as a Communication Device," reprinted in In Memoriam: J.C.R. Licklider, Digital Equipment Corporation Systems Research Center, August 7, 1990.

Licklider, J.C.R. and Albert Vezza. "Applications of Information Networks," Proceedings of the IEEE, November, 1978.

Marrill, Thomas, and Lawrence G. Roberts. "Toward a Cooperative Network of Time-Shared Computers," presented to the American Federation of Information Processing Systems' Fall Joint Computer Conference, 1966.

McCarthy, J., S. Boilen, E. Fredkin, and J.C.R. Licklider. "A Time-Sharing Debugging System for a Small Computer," presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, 1963.

McKenzie, Alexander A. "The ARPA Network Control Center." Presented to the Fourth Data Communications Symposium, The Institute for Electrical and Electronics Engineers, Inc., 7-9 October 1975.

McKenzie, Alexander A. and B.P. Cosell, J.M. McQuillan, M.J. Thrope. "The Network Control Center for The ARPA Network." Presented to the International Conference on Computer Communication, Washington, D.C. Proceedings of the IEEE, 1972.

Ornstein, Severo M., F.E. Heart, W.R. Crowther, H.K. Rising, S.B. Russell and A. Michel. "The Terminal IMP for The ARPA Network." Presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, Atlantic City, N.J., May 1972.

Pouzin, Louis. "Presentation and Major Design Aspects of the Cyclades Computer Network," presented to IEEE Third Data Communications Symposium (Data Networks: Analysis and Design), November 1973.

Quarterman, John S. and Josiah C. Hoskins. "Notable Computer Networks," Communications of the Association for Computing Machinery, October 1986.

Roberts, Lawrence G. "The ARPANET and Computer Networks," Proceedings of the Association for Computing Machinery Conference on the History of Personal Workstations, 9-10 January 1986.

Roberts, Lawrence G. "ARPA Network Implications," Educom (Bulletin of the Interuniversity Communications Council), Fall 1971.

Roberts, Lawrence G. "Extensions of Packet Communications Technology to a Hand-Held Personal Terminal," presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, May 1972.

Roberts, Lawrence G. "Multiple Computer Networks and Intercomputer Communication," presented to the Association for Computing Machinery Symposium on Operating System Principles, October 1-4, 1967.

Roberts, Lawrence G. and Barry D. Wessler. "Computer Network Development to Achieve Resource Sharing," presented to the American Federation of Information Processing Systems' Spring Joint Computer Conference, 1970.

Swartzlander, Earl. "Time-Sharing at MIT," IEEE Annals of the History of Computing, Vol. 14, No. 1, 1992.

David C. Walden, "Experiences in Building, Operating, and Using the ARPA Network." Paper presented at the Second U.S.A.–Japan Computer Conference, Tokyo, Japan, August 1975.

Interviews and Unpublished Material:

MISC:

Richard J. Barber, *The Advanced Research Projects Agency: 1958-1974.* A study prepared by Richard J. Barber Associates, Inc. for the Advanced Research Projects Agency under Contract No. MDA-903-74-C-0096. Washington D.C.: December 1975

Annual Report of the Science Development Program, BBN Systems and Technologies Corporation, 1988.

"ARPA Computer Network Provides Communications Technology for Computer/Computer Interaction Within Special Research Community." EDP Industry Report and Market Review (International Data Corporation, Newtonville, MA), 3 March 1972.

ARPANET Study Final Report, RCA Service Company, Government Services Division (Contract No. F08606-73-C-0018), 24 November 1972

Barlow, John Perry. Crime and Puzzlement, Pinedale Wyoming, June 1990.

Bolt Beranek and Newman Inc. *ARPANET Completion Report* (Draft). Cambridge, Mass., September 1977.

Bolt Beranek and Newman Inc., *Papers and memoranda relating to the work of Division 6 staff.* Cambridge, Mass., 1971-1972.

Bolt Beranek and Newman Inc., "Report No. 4799: A History of The Arpanet: The First Decade." Submitted to the Defense Advanced Research Agency, Arlington, Virginia, April 1981.

Bolt Beranek and Newman Inc., "Interface Message Processors for The ARPA Computer Network." *Quarterly technical reports.* Submitted to the Advanced Research Projects Agency under Contract No. DAHC 15-69-C-0179 and Contract No. F08606-73-C-0027, Washington, D.C., 1969-1973.

Bolt Beranek and Newman Inc., "BBN Proposal No. IMP P69-IST-5: Interface Message Processors for The ARPA Computer Network" *Design proposal.* Submitted to the Department of the Army in response to RFQ No. DAHC15 69 Q 0002. Washington, D.C., 6 September 1968.

Bolt Beranek and Newman Inc., "BBN Report No. 1763: Initial Design for Interface Message Processors for The ARPA Computer Network." *Design proposal.* Submitted to the Advanced Research Projects Agency under Contract No. DAHC 15-69-C-0179. Washington, D.C., 6 January 1969.

Bolt Beranek and Newman Inc., *Operating Manual for Interface Message Processors: 516 IMP, 316 IMP, TIP.* (Revised) Submitted to the Advanced Research Projects Agency under ARPA Order No. 1260, Contract No. DAHC15-69-C-0179. Arlington, Virginia: April 1973.

Bolt Beranek and Newman Inc., "The Four Cities Plan." *Draft proposal and cost analysis for maintenance of IMPs and TIPs in Boston, Washington, Los Angeles, and San Francisco.* Papers of BBN Division 6, Cambridge, Mass., April 1974.

Catton, Jack (Major General, USAF), Letter to F.R. Collbohm (Rand Corporation), October 11, 1965, referring Preliminary technical development plan for message-block network to the Defense Communications Agency.

Cerf, Vinton G. *Confessions of a Hearing-Impaired Engineer.*

Cerf, Vinton G. and Jonathan B. Postel. "Specification of Internetwork Transmission Control Protocol: TCP Version 3," Information Sciences Institute, University of Southern California, January 1978.

William Crowther and David Walden to Frank E. Heart. *Memorandum on Current Views of Timing.* Cambridge, Mass.: 8 July 1969.

Davies, D.W. Proposal for a Digital Communication Network, National Physical Laboratory, Middlesex, England.

Davies, D.W., K.A. Bartlett, R.A. Scantlebury, and P.T. Wilkinson. A Digital Communication Network for Computers Giving Rapid Response at Remote Terminals, National Physical Laboratory, Middlesex, England.

Davis, Ruth M. "Comments and Recommendations Concerning the ARPA Network," Center for Computer Sciences and Technology, U.S. National Bureau of Standards, 6 October 1971.

"Development of the Distributed Adaptive Message-Block Network," Recommendation to the Air Staff, The Rand Corporation, 30 August 1965.

"DOD Standard Transmission Control Protocol," RFC #761, Prepared for DARPA IPTO by Information Sciences Institute, University of Southern California, January 1980.

"Interface Message Processors for the ARPA Computer Network," Digital Equipment Corporation technical proposal submitted to the Department of the Army, Defense Supply Service, 5 September 1968.

Honeywell, Inc., "Honeywell at Bolt Beranek and Newman, Inc." *Brochure published for the ARPA Network demonstration at the ICCC Fall Meeting.* Fall 1972.

Kahn, Robert E. The Introduction of Packet Satellite Communications.

Kryter, Karl D. "Lick as a Psychoacoustician and Physioacoustician," Presentation honoring J.C.R. Licklider, Meeting of the Acoustical Society of America, Baltimore, Maryland, 30 April 1991.

Kryter, Karl D. Obituary of J.C.R. Licklider, Journal of The Acoustical Society of America. (ckdate)

Metcalfe, Robert. "Some Historic Moments in Networking," RFC #89 (NIC 5697), Network Working Group, January 19, 1971.

Norberg, Arthur L. and Judy E. O'Neill. A History of the Information Processing Techniques Office of the Defense Advanced Research Projects Agency. Charles Babbage Institute, University of Minnesota, Minneapolis (MN), 1992.

Postel, Jonathan B. "Specification of Internetwork Transmission Control Protocol: TCP Version 4," Information Sciences Institute, University of Southern California, September 1978.

Roberts, Lawrence G. " The ARPANET and Computer Networks," 1986.

"Scanning the Issues," IEEE Spectrum, August, 1964.

ARPA Network Information Center. *Scenarios for Using the ARPANET* . Booklet prepared for the International Conference on Computer Communication, Washington, D.C., 24-26 October 1972. Stanford Research Institute, Menlo Park, California.

"Transport Protocols for Department of Defense Data Networks," Report to the Department of Defense and the National Bureau of Standards, Board on Telecommunication and Computer Applications, Commission on Engineering and Technical Systems, National Research Council, 1985.

Walker, Stephen T. *Completion Report: ARPA Network Development.* Defense Advanced Research Agency, Information Processing Techniques Office, Washington, D.C.: 4 January 1978.

Weik, Martin H. "A Third Survey of Domestic Electronic Digital Computing Systems," Ballistic Research Laboratories Report No. 1115, March, 1961,

INTERVIEWS (Secondary Source):

Baran, Paul. March 5, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Blue, Allan. June 12, 1989, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Cerf, Vinton G. April 24, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Clark, Wesley. May 3, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Crowther, William. March 12, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Frank, Howard. March 30, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Heart, Frank E. March 13, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Larry Roberts, ⟷

group photos: →

locations →

Herzfeld, Charles A. , by Arthur Norberg. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Kahn, Robert. March 22, 1989, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Kahn, Robert. April 24, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Kleinrock, Leonard. April 3, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Licklider, J.C.R. October 28, 1988, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Lukasik, Stephen. October 17, 1991, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

McKenzie, Alex. March 13, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Ornstein, Severo. March 6, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Roberts, Lawrence G. April 4, 1989, by Arthur Norberg. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Ruina, Jack. April 20, 1989, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Sutherland, Ivan. May 1, 1989, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

Taylor, Robert. February 28, 1989, by William Aspray. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

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◁ March. 4th ▷ Copy editorial
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Notes on Sources:

Note for each

Chapter One is based: —→ on:
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shows reader reliable source:

Walden, David. February 6, 1990, by Judy O'Neill. From the Charles Babbage Institute's DARPA Oral History Collection, University of Minnesota Center for the History of Information Processing, Minneapolis, MN.

NOTES OF THE INTERNATIONAL NETWORK WORKING GROUP:

Cerf, Vinton, and Robert Kahn. "HOST and PROCESS Level Protocols for Internetwork Communications." Notes of the International Network Working Group (INWG Document #39), September 13, 1973.

Pouzin, Louis. "Interconnection of Packet Switching Networks," Notes of the International Network Working Group (INWG Document #42), October, 1973.

Zimmermann, H. and M. Elie. "Proposed Standard Host-Host Protocol for Heterogeneous Computer Networks: Transport Protocol," Notes of the International Network Working Group (INWG Document #43), December, 1973.

Pouzin, Louis. "Experimental Communication Protocol: Basic Message Frame," Notes of the International Network Working Group (INWG Document #48), January, 1974.

Pouzin, Louis. "Network Architecture and Components," Notes of the International Network Working Group (INWG Document #49), August, 1973.

Pouzin, Louis. "Network Protocols," Notes of the International Network Working Group (INWG Document #50), September, 1973.

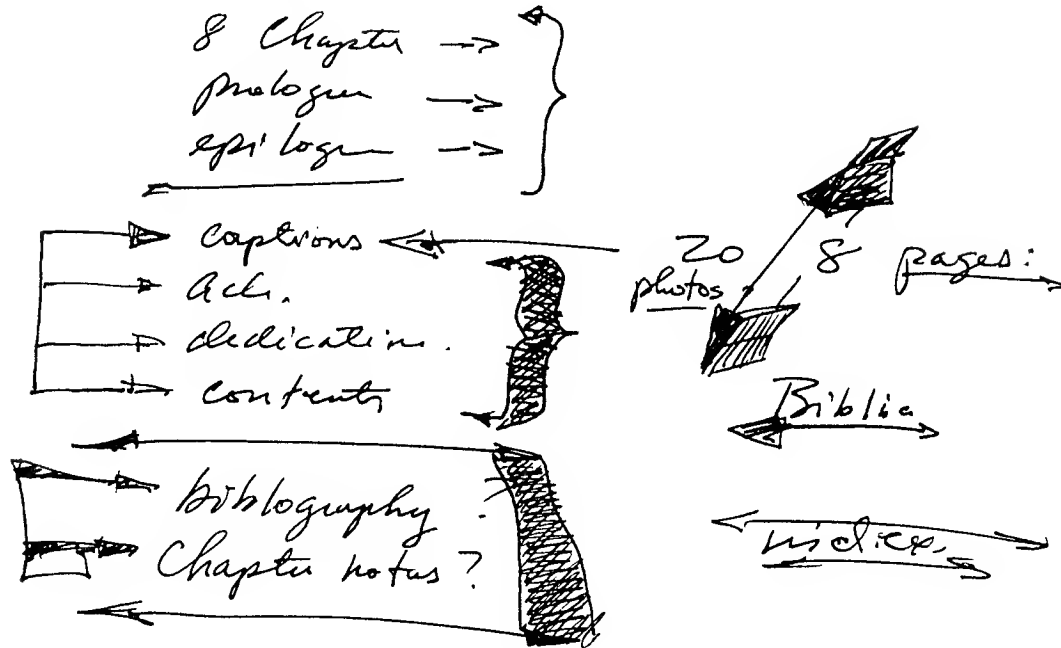## NETWORK WORKING GROUP, REQUESTS FOR COMMENTS

Vinton Cerf, "Parry Encounters the Doctor." Request for Comments No. 439 (NIC No. 13771). Network Working Group, 21 January 1973.

Jonathan B. Postel, "TCP and IP Bake Off." Request for Comments No. 1025. Network Working Group, September 1987.
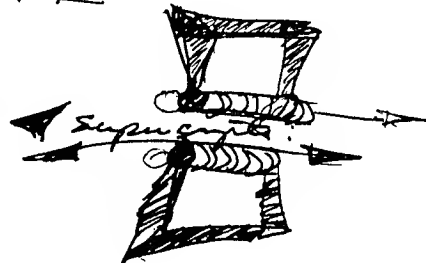
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Alex

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13. ABSTRACT

The basic function of the IMP computer network is to allow large existing time-shared (Host) computers with different system configurations to communicate with each other. Each IMP (Interface Message Processor) computer accepts messages for its Host from other Host computers and transmits messages from its Host to other Hosts. Since there will not always be a direct link between two Hosts that wish to communicate, individual IMPs will, from time to time, perform the function of transferring a message between Hosts that are not directly connected. This then leads to the two basic IMP configurations —— interfacing between Host computers and acting as a message switcher in the IMP network. The message switching is performed as a store and forward operation. Each IMP adapts its message routine to the condition of those portions of the IMP network to which it is connected. IMPs regularly measure network performance and report in special messages to the network measurement center. Provision of a tracing capability permits the net operation to be studied comprehensively. An automatic trouble reporting capability detects a variety of network difficulties and reports them to an interested Host. An IMP can throw away packets that it has received but not yet acknowledged, transmitting packets to other IMPs at its own discretion. Self-contained network operation is designed to protect and deliver messages from the source Host to the destination Host.

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14. KEY WORDS	LINK A		LINK B		LINK C	
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Store and Forward Communication						
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